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“जानने का अधिकार, जीने का अधिकार”

Mazdoor Kisan Shakti Sangathan

“The Right to Information, The Right to Live”

“पुराने को छोड़ नये के तरफ”

Jawaharlal Nehru

“Step Out From the Old to the New”

IS 5217 (1969): Clamp, Flask, Dental [MHD 8: Dentistry]

“ज्ञान से एक नये भारत का निर्माण”

Satyanaaranay Gangaram Pitroda

“Invent a New India Using Knowledge”



“ज्ञान एक ऐसा खजाना है जो कभी चुराया नहीं जा सकता है”

Bhartṛhari—Nītiśatakam

“Knowledge is such a treasure which cannot be stolen”



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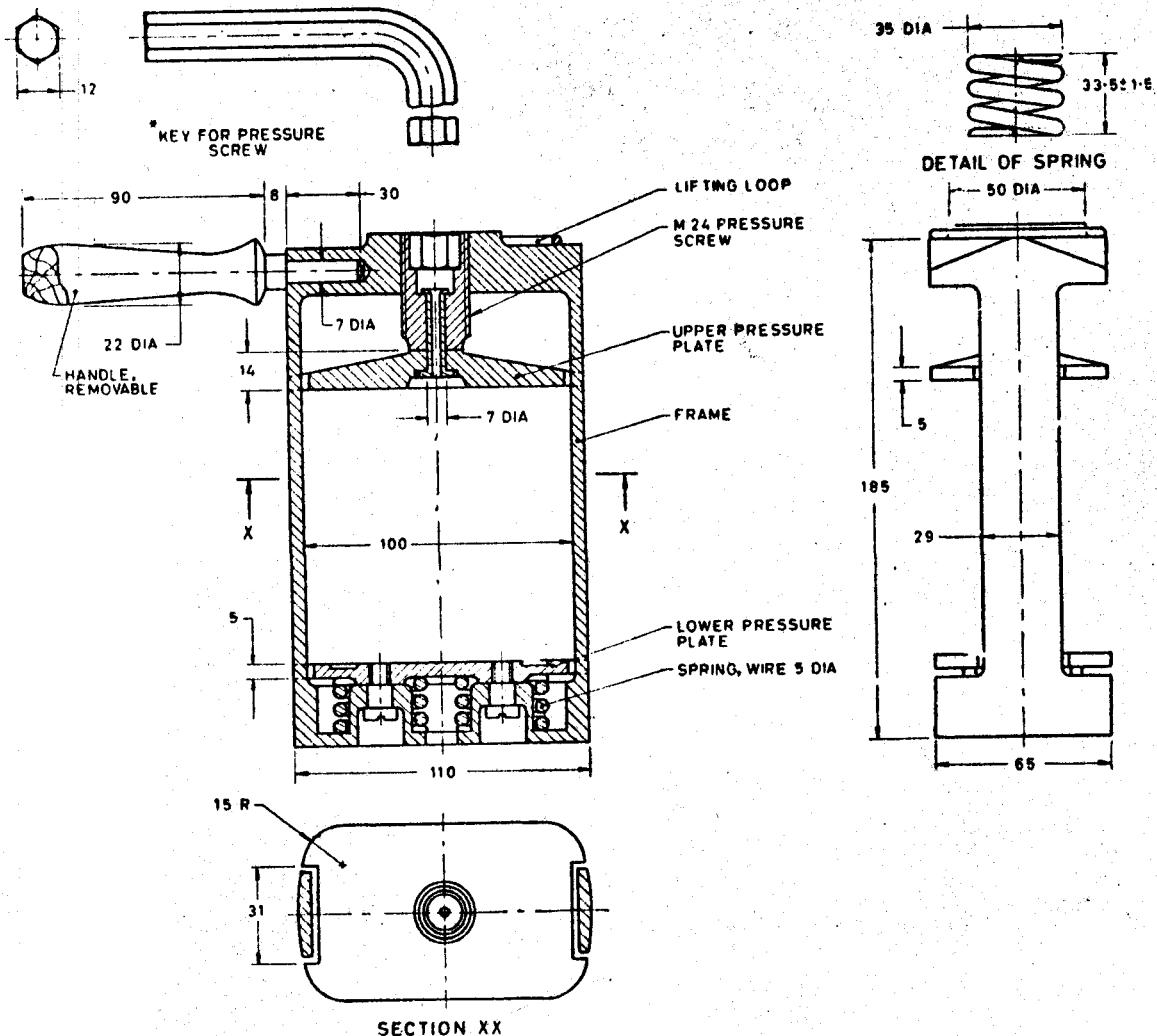


Indian Standard

SPECIFICATION FOR CLAMP, FLASK, DENTAL

1. Scope—Dimensions and requirements of dental flask clamp capable of holding two metallic flasks in position under constant pressure.

2. Shape and Dimensions—As shown in Fig. 1.



*See IS : 3082 - 1965 'Specification for hexagonal keys for socket head screws'.

All dimensions in millimetres.

FIG. 1 CLAMP, FLASK, DENTAL

3. Materials

Component

- i) Frame and lower pressure plate
- ii) Upper pressure plate
- iii) Pressure screw

Material

- Brass casting, Grade 3 of IS : 304-1961*
- Brass casting, Grade 2 of IS : 304-1961*
- Brass rod, round, of IS : 319-1968†

*Specification for high tensile brass ingots and castings (revised).

†Specification for free-cutting brass rods and sections (second revision).

component	Material
iv) Spring, coil	Stainless steel, Designation 04Cr19Ni9 of Schedule V of IS: 1570-1961*
v) Lifting loop	Brass wire
vi) Holding handle:	
a) Rod	Cold rolled steel, cadmium plated (for cadmium plating, see IS: 1572-1968†)
b) Ferrule	Steel, chromium-over-nickel plated (for chromium-over-nickel plating, see IS: 1068-1968‡)
c) Handle	Hardwood
vii) Hexagonal Key	Steel

4. Construction--The flask clamp shall satisfactorily accommodate two metallic denture flasks or one such flask together with a spacer under pressure during the curing process. The flask clamp shall consist of a frame, pressure screw, upper and lower pressure plates, hexagonal key, holding handle and two springs. The frame base, top, and sides shall be a one-piece construction. The top shall be equipped with a lifting loop for transporting the unit. The top of the frame shall be drilled to receive the steel rod of the holding handle. The pressure screw shall be broached at the top for insertion and actuation by a hexagonal key. The lower half of the pressure screw shall be attached to the pressure plate. The upper pressure plate shall be a one-piece casting. The upper pressure plate shall be notched on ends to fit the sides of the frame. The lower pressure plate shall be notched on the ends to fit the sides of the frame and shall be tapped to receive two screws, inserted as guides for the coil springs, through base of the frame. Two replaceable coiled springs shall be positioned over two bosses integrally cast in the frame base. The lower pressure plate shall be a one-piece construction. The springs shall serve to suspend the lower pressure plate over the frame bottom, serving as spring clamp.

5. Workmanship and Finish

5.1 All castings shall be free from blowholes, porosity, hard spots, shrinkage defects, cracks and other defects.

5.2 External surfaces of castings shall be smooth. All other components shall be smoothly finished.

5.3 All sharp edges shall be rounded.

5.4 In all respects the hexagonal key shall conform to IS: 3082-1965§.

6. Spring Compression-- Each spring shall be capable of sustaining a compression load of 90 kgf so that its free length of 33.5 ± 1.5 mm shall be compressed to a height of 21.5 ± 0.8 mm, when tested 'as given in 7.

7. Compression Test--The stainless steel coil springs shall be disengaged by removing the two screws from the lower pressure plate assembly. Each spring shall be tested individually by mounting in a suitable apparatus, so that when a compressive force of 90 kgf is applied the height of the compressed spring shall conform to that given in 6.

8. Marking--Each flask clamp shall be marked with the manufacturer's name, identification mark or trade-mark and the country of manufacture.

8.1 ISI Certification Marking— Details available from Indian Standards Institution ▲

9. Packing--The flask clamp shall be kept in polyethylene bag and packed in a wooden case. The empty space should be filled by paper cuttings. The flask clamp may also be packed as agreed to between the purchaser and the supplier.

*Schedules for wrought steels for general engineering purposes.

†Specification for cadmium plating (first revision).

‡Specification for electroplated coatings of nickel and chromium on iron and steel (first revision).

§Specification for hexagonal keys for socket head screws.